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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,616

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Kunitoshi Watanabe

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10/20/2010

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EXAMINER

KLINKEL, KORTNEY L

ART UNIT

PAPER NUMBER

1611

NOTIFICATION DATE

DELIVERY MODE

10/20/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

department-gso.patent@syngenta.com

Office Action Summary	Application No. 10/598,616	Applicant(s) WATANABE ET AL.	
	Examiner Kortney L. Klinkel	Art Unit 1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5 and 7-10 is/are pending in the application.
- 4a) Of the above claim(s) 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims

The response filed 6/17/2010 is acknowledged. Claims 2-4, and 6 stand canceled. Claims 1, 5 and 7-10 are pending. Claims 7-10 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected subject matter. Claims 1 and 5 are under consideration in the instant Office action.

Foreign Priority

Acknowledgement is made of applicant's foreign priority claim to Japanese patent application serial number 2004-066673 filed 3/10/2004. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soejima et al. (Derwent abstract of JP 8175914, "Solubilised formulation for injecting into wood trunk to inhibit withering of pine trees – contains e.g. insecticide, solubilising agent contg. nonionic surfactant and solvent" published 1996, as per applicant's IDS submitted 9/6/2006 and machine translation of JP 8175914), in view of Ogura et al. (US 6063734) as evidenced by the Pesticide Fact Sheet for Clothianidin (EPA issued May 30, 2003, pages 1-19).

Please note that an official English translation of the JP 8175914 is included with this correspondence. As this translation does not alter any of the facts relied upon in the rejection, this rejection is being maintained and is made final.

Soejima et al. teach a method of protecting pine trees from withering by injecting into the trunk an insecticide which has water solubility less than 5 g/l, a nonionic

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surfactant having an HBL value greater than 12 and a solvent which is either water or a solvent miscible with water (abstract, claim 1, [0007]). Please note that the machine translation of Soejima et al. translates the word "formulation" to be "tablet" throughout the document. This point is clear due to the fact that the objective of Soejima et al. is to solubilize a water insoluble insecticide (see para. [0007])—if it were a tablet, it would not make sense. More specifically the preferred insecticides are fenitrothion, prothiophos, propaphos, fosthiazate, *inter alia* (abstract, [0007]). The preferred surfactants include polyoxyethylene hardened castor oil, and polyoxyethylene-alkylethers, *inter alia* (abstract, claim 5 and [0010]), and the preferred solvents include alcohols, glycol esters (a glycol), acetone (a ketone), acetonitrile (a nitrile), tetrahydrofuran (an ether) among others (abstract, and [0011]). Soejima et al. also teach that the formulations having either water or a water miscible solvent and a surfactant present help to enhance the stability of activity of the insecticides without causing chemical injuries to the trees (abstract).

The teachings of Soejima et al. differ from the instant claims in that neither of the insecticides clothianidin or dinotefuran are taught.

Ogura et al. teach that clothianidin and fenitrothion (col. 166, lines 47 and 55 respectively) are insecticides. As addressed above, Soejima et al. teach that fenitrothion has a solubility in water of less than 5 g/l. Likewise, as evidenced by the Pesticide Fact Sheet for Clothianidin, clothianidin has a solubility in water of less than 5 g/l (0.327 g/l at 20°C, page 3).

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It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the instant invention to substitute the water insoluble insecticide fenitrothion as taught by Soejima et al. with the water insoluble insecticide clothianidin as taught by Ogura et al. and evidenced by the Pesticide Fact Sheet for Clothianidin with a reasonable expectation that the resulting composition would be useful when injected into a tree trunk at preventing damage to trees caused by harmful insects by injecting into a tree trunk. One would have been motivated to do so because fenitrothion and clothianidin are functional equivalents. It is *prima facie* obvious to substitute one art recognized equivalent for another. One of ordinary skill in the art would also have the expectation that the resulting clothianidin formulation would be more stable and would help to prevent chemical injuries to the trees, as these are properties taught to be present by the solvent/surfactant system. Furthermore, one of ordinary skill in the art would be imbued with the reasonable expectation that the resultant composition when injected into a tree trunk would prevent damage to the trees caused by harmful insects or more specifically leaf-eating insects, sap-sucking insects or hole-boring insects. One would be imbued with this reasonable expectation since it is known in the art that clothianidin is an insecticide.

Applicant's data in the specification has been considered. Example 2 is directed to a study where various formulations of the insecticide thiamethoxam and one organic phosphorus-based insecticide are injected into cherry, pine and camellia trees. The results in Tables 5-8 show that the thiamethoxam containing formulations, which it is noted contain a different solvent system from the organic phosphorus-based system,

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show a better insecticidal effect against various pests on cherry, pine and camellia trees. The specification does not contain any data for the insecticide clothianidin or dinotefuran that is commensurate with the claim scope.

Response to Arguments

Applicant's arguments submitted 6/17/2010 regarding the rejected claims have been fully considered but are not persuasive.

Applicant argues that "[o]ne of ordinary skill in the art would not expect an organophosphorous – fenitrothion tree injection composition for controlling nematodes could be modified with a neonicotinoid-based insecticide for controlling harmful insects." Applicant bases this argument on the fact that the insecticide fenitrothion of Soejima et al. is a different class of insecticide than the neonicotinoid-based insecticide clothianidin which is claimed. Applicant points to the example in Soejima which shows that the organophosphorus insecticide fenitrothion is effective against pine wood nematode which is not an insect. These arguments are not persuasive.

The fact remains that both fenitrothion (of Soejima) and clothianidin (claimed) are art recognized insecticides. Moreover, the art recognizes that both of these insecticides are water insoluble having a solubility in water of less than 5 g/l (see abstract, claim 1 and [0007] of Soejima and the Pesticide Fact Sheet for Clothianidin). Soejima et al. teach that using an instantly claimed surfactant with water or a water miscible solvent that water insoluble insecticides can be solubilized and injected into a tree to prevent damage by harmful insects. One would have been motivated to substitute fenitrothion for clothianidin since they are art recognized functional equivalents. Namely, both are

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water insoluble insecticides. One of ordinary skill in the art would also have the expectation that the resulting clothianidin formulation would be more stable and would help to prevent chemical injuries to the trees, as these are properties taught to be present by the solvent/surfactant system. Furthermore, one of ordinary skill in the art would be imbued with the reasonable expectation that the resultant composition when injected into a tree trunk would prevent damage to the trees caused by harmful insects or more specifically leaf-eating insects, sap-sucking insects or hole-boring insects. One would be imbued with this reasonable expectation since it is known in the art that clothianidin is an insecticide. Applicant has not provided evidence to the contrary.

Regarding the fact that Soejima et al. provides an example showing that fenitrothion is effective against pine wood nematode which is not an insect, this fact does not detract from the broader teaching of the prior art which teaches that fenitrothion is also an insecticide. To this point, case law states that “[t]he prior art’s mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed....” *In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Applicant further argues that the data provided in instant Tables 5-8 is sufficient to show unexpected results and thereby overcome the obviousness rejection. More specifically applicant argues that the neonicotinoid-based insecticide thiamethoxam shows superior insect controlling ability when compared to the organophosphorus compound fenitrothion. This argument is not persuasive.

As addressed in the rejection of claims, the results in Tables 5-8 show that the thiamethoxam containing formulations, *which it is noted contain a different solvent system from the organic phosphorus-based system*, show a better insecticidal effect against various pests on cherry, pine and camellia trees. This comparison is an indirect comparison and thereby proves nothing about the alleged superiority of the neonicotinoid-based insecticidal composition as compared to the organophosphorus insecticidal composition. Additionally it is noted that the insecticide thiamethoxam is not claimed. Further, the specification does not contain any data for the insecticide clothianidin or dinotefuran that is commensurate with the claim scope.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 10/598615. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are directed to a method for the prevention of damage to trees caused by harmful insects by injecting into a tree trunk a composition containing clothianidin or dinotefuran. Subsequent dependent claims require the presence of a solvent and a surfactant. The claims of co-pending '615 are directed to a method for obtaining lumber that does not require termite-proofing treatment following lumber production, said method comprising injecting a tree trunk injection comprising a neonicotinoid-based insecticide, more specifically dinotefuran and clothianidin (claim 2). It is noted that the preambles of the method claims in the co-pending applications differ. However, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Both sets of claims require the same active steps and the same active ingredients.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

Applicant's arguments regarding the provisional rejection of claims have been fully considered, but are not persuasive. Applicant argues that the claims are not obvious over claims 1-5 of the '615 applicant but do not provide any specific arguments. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. As such, the provisional rejection is maintained.

Conclusion

Claims 1 and 5 are rejected. No claim is allowed.

No new ground(s) of rejection were presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kortney Klinkel, whose telephone number is (571)270-5239. The examiner can normally be reached on Monday-Friday 10 am to 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached at (571)272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KLK

/Ashwin Mehta/
Primary Examiner, Technology Center 1600